AOML Keynotes
Miami, Florida
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Hurricane Season Ends!

South Floridians breathed a collective sigh of relief on November 30th as the 1999 Atlantic hurricane season officially ended. NOAA's first pre-hurricane season forecast, issued in May 1999, accurately predicted an "above-average" year, due mainly to the effects of an ongoing La Niña weather cycle. In fact, the 1999 season produced 12 named tropical storms, eight of which became hurricanes. Five of the season's hurricanes (Bret, Cindy, Floyd, Gert, and Lenny) became major category-4 storms (wind speeds of 131 mph or greater on the Saffir-Simpson scale), marking 1999 as the year with more category 4 storms than ever noted since recordkeeping began in 1886.

Hurricanes Bret, Floyd, and Irene, as well as Tropical Storms Dennis and Harvey, all impacted the U.S. mainland, claiming more than 60 lives and causing about $1.7 billion in insured damage (nearly $4 billion in total damages). Severe inland flooding from heavy rainfall, responsible for the majority of the 1999 season's devastation, has prompted researchers to begin developing a scale to measure the rainfall and subsequent flooding potential of hurricanes. Currently, the Saffir-Simpson scale categorizes storms according to their barometric pressure, wind speed, storm surge, and expected level of damage.

"Homegrown" *Project ACCESS* Coordinates Coastal Oceanic and Atmospheric Data

Project ACCESS (Accelerated Coastal Community Environmental Science Service) is a relatively new program developed at AOML that seeks to gather members of Florida's marine community to coordinate coastal data collection and distribution efforts along the eastern coast of Florida (see figure). A broad range of Federal, state and local government agencies, academia, infrastructure companies (such as utilities), and other organizations that operate in the marine environment (such as those involved with beaches, ports, and habitat/emergency management) have joined *Project ACCESS* to cooperate in gathering and disseminating coastal and atmospheric data. *Project ACCESS* seeks to:

- Identify data that is already being collected (historical and contemporary),
- Identify mechanisms for gaining access to that data,
- Identify mechanisms for redistributing these data (existing mechanisms and those to be developed),
- Create the process(es) by which various groups can work together to combine sampling efforts and expand the network of measurements.

AOML's Judy Gray and Michael Crane (National Environmental Satellite Data and Information Service/National Oceanographic Data Center) sponsored the first *Project ACCESS* workshop in Miami on November 4, 1998 to assess the marine community's interest in coordinating data access and distribution. Feedback from workshop participants provided the basis for developing *Project ACCESS*. Three subsequent workshops held in different geographic areas along the Florida east coast have helped define future cooperative ocean monitoring projects and prioritize the types of data to be made available through *Project ACCESS* to participants. AOML has created both an electronic mail distribution system and an Internet web page (http://www.aoml.noaa.gov/oad/paccess/) to facilitate and enhance communication among *Project ACCESS* participants. An "ftp" site has also been established for contributors of data to the project.

Project ACCESS provides a forum for information exchange, encourages new alliances among its members, and ensures that the needs and wishes of the constituencies operating in the marine region will help define plans for sampling, data management, and access. It also acts as a clearing house for data, provides a long-term archive for users, and promotes community solutions to problems.

NOAA's Alternative Dispute Resolution Program

ADR is an informal process whereby individuals voluntarily agree to attempt to resolve their workplace differences through an impartial mediator

An informational seminar about NOAA's Alternative Dispute Resolution Program will be presented by

Mary Hoagland
(Alternative Dispute Resolution Program Coordinator)

December 13, 1999

10:00 a.m.-12:00 p.m.

National Marine Fisheries Service Conference Room
(in their Annex)

(Supervisors and rating officials are strongly encouraged to attend)

Combined Federal Campaign

The 1999 Combined Federal Campaign Program enrollment deadline has been extended to

December 15, 1999

Contact Judy Gray for more information

(305-361-4306 or gray@aoml.noaa.gov)

NOAA and University Scientists Study Methyl Bromide Cycling in the North Pacific

Shari Yvon-Lewis, Kelly Goodwin, and Sara Cotton, AOML/Ocean Chemistry Division

As part of a study supported by both NASA and NOAA, scientists from two NOAA laboratories, three universities, and the Commonwealth Scientific and Industrial Research Organization (CSIRO-Australia) participated in a research cruise aboard the NOAA ship R/V *Ronald H. Brown*. The ship departed Kwajalein, Republic of the Marshall Islands on September 14, 1999 and arrived in Seattle, Washington on October 23, 1999 with stops in Honolulu, Hawaii, Dutch Harbor, Alaska, and Kodiak, Alaska. The objective of this research effort was to obtain reliable measurements of the uptake and emission of methyl bromide and other climatically important halocarbons in tropical to temperate regions of the North Pacific Ocean.

Shari Yvon-Lewis, Kelly Goodwin, Eileen Loiseau (Bigelow Laboratory for Ocean Sciences), and Georgina Sturrock (CSIRO) collect water samples for production and degradation incubations aboard the NOAA ship *Ronald H. Brown*.

Atmospheric methyl bromide (CH_3Br), which is of both natural and anthropogenic origin, has been identified as a Class I ozone-depleting substance in the amended and adjusted *Montreal Protocol on Substances that Deplete Stratospheric Ozone*. The role of the ocean in regulating the atmospheric burden of this gas is still somewhat uncertain. Methyl bromide is both produced and destroyed in the ocean through chemical and biological processes. The organisms or reactions that produce CH_3Br at rates sufficient to explain its observed concentrations are not known. Degradation has been shown to occur at rates that are faster than can be explained by known chemical degradation reactions, and evidence suggests that this additional degradation is bacterial consumption of CH_3Br. While recent measurements have shown that, on the whole, the ocean is a net sink for CH_3Br, measurement coverage to date has been limited and sporadic, which restricts our ability to map the spatial and temporal variations that are necessary for understanding how the system will respond to perturbations (*e.g.,* global warming).

The measurements made during this cruise are designed to help improve our understanding of the role that the oceans play in the cycling of CH_3Br. Measurements were made of the concentrations of CH_3Br and a suite of natural and anthropogenic halocarbons in the air and surface water, degradation rates of CH_3Br in the surface water, production rates of CH_3Br and other natural halocarbons in the surface water, and depth profiles of CH_3Br and other halocarbons. The combined results from these measurements will be used to constrain the budget of CH_3Br in these waters at this time of year. The relative importance of the biological and chemical processes will be examined for tropical and high latitudes. Attempts will also be made to extract relationships between the production rates, degradation rates, and concentrations measured and satellite measurements in order to develop proxies that can provide global coverage on shorter time scales. At this time, there is insufficient data to examine seasonal and long-term trends in net flux, production, or degradation. Until satellite measurable proxies can be found, additional research cruises are needed to reduce the uncertainty in the global net flux estimate and to map the spatial and temporal variations in the net fluxes, production rates, and degradation rates of CH_3Br and other climatically important halocarbons.

Other project participants included James Butler and Daniel King (Climate Monitoring and Diagnostics Laboratory), Eric Saltzman and Ryszard Tokarczk (Rosenstiel School of Marine and Atmospheric Science), Patricia Matrai, Brian Yocis, and Eileen Loiseau (Bigelow Laboratory for Ocean Sciences), and Georgina Sturrock (CSIRO).

Welcome Aboard

Jennifer Calderon joins the staff of the Office of the Director as AOML's new receptionist.

Farewell

Jason Masters, Oceanographer with the Ocean Chemistry Division, resigned from federal service on November 17, 1999 to accept a position in private industry as a corporate recruiter of scientific personnel.

Congratulations

Cathy Steward, AOML Administrative Officer, has won a NOAA Administrator's Award for "creating revolutionary improvements to the administrative support functions for AOML." The award will be presented at a ceremony in Washington, D.C. on December 14, 1999.

Claude Jodoin, CIMAS Research Associate with the Physical Oceanography Division, received a Master's degree in Electrical Engineering from Florida Atlantic University in November 1999. Claude's thesis, "Detection of GSP signals in a multipath fading environment," will be expanded upon in a paper he is preparing with his thesis advisor. Claude also holds a Master's degree in Ocean Engineering.

Bret Elkind, CIMAS Research Associate with the Ocean Acoustics Division, completed a RSMAS Scientific/Research Diving course in October 1999 to become a certified diver.

Diversity Seminar:

"Growing Up Swedish"

Dr. Kristina Katsaros

December 7, 1999

12 Noon

First-Floor Conference Room

Holiday Happenings at AOML

Tree Trimming: Staff members gathered on November 29th to trim AOML's tree and decorate the lobby for the holidays (photos this page). A practice session by AOML's Holiday Ensemble helped create a fun and festive atmosphere.

Door Decorating Contest: AOML's 1999 door decorating contest will be held on Friday, December 10th. Joyce Berkeley and Mayra Pazos will walk the halls Friday morning from 9:00-10:00 a.m. to look for decorated doors and to enter the names of contestants into a drawing. Three winners will be selected during the holiday pot-luck luncheon and receive prizes (winners need not be present to win).

Yeun-Ho Daneshzadeh shows off her handiwork, a beautifully-decorated tree for the AOML lobby.

Holiday Party/Pot-Luck Luncheon: AOML's annual holiday party will be held Friday, December 10th beginning at 12 noon. A minimal charge of $5.00 per person (no charge for children under the age of 11) will help to cover the cost of purchasing turkeys, ham, beverages, and raffle prizes. Participants are asked to please bring a dish or dessert to share with others. Entertainment will be provided by AOML's very own Holiday Ensemble under the musical direction of Jack Stamates. Sign-up sheets are posted in the main elevator and at the receptionist's desk in the lobby. Contact your divisional Morale, Welfare, and Recreation Committee representative or Alejandra Lorenzo (305-361-4404 or (lorenzo@aoml.noaa.gov) for more information.

Children's Party: AOML will host a holiday party for the kids on December 10th after the pot-luck luncheon, beginning at approximately 3:30 p.m. There will be lots of goodies, singing and dancing, plus the return of wonderland and the magical talking tree.

Mayra Pazos and Joyce Berkeley prepare to make wreaths for the lobby.

Crandon Park

AOML Volunteer Work Day

December 4, 1999 (sign-up sheets are in the lobby)

9:00 a.m.-12:00 noon

Crandon Park Bear Cut Preserve

Volunteers will help remove exotic, invasive plants from Bear Cut Preserve and replace them with native vegetation

Contact Chris Landsea for more information (305-361-4357 or landsea@aoml.noaa.gov)

Travel

Mark Powell will attend a National Institute of Building Science/HAZUS Wind Committee meeting and briefing on the Hurricane Research Division's wind analysis system at FEMA Headquarters in Washington, D.C., on November 30-December 2, 1999.

John Proni and Terry Nelsen will attend a joint NOAA/U.S. Army Corps of Engineers meeting regarding dredge studies in Vicksburg, Mississippi on November 30-December 2, 1999.

Gregg Thomas will participate in a high density XBT (expendable bathythermograph) cruise aboard the container vessel *Sealand Crusader* on December 3, 1999. The *Sealand Crusader* maintains a weekly run between Port Elizabeth, New Jersey, and San Juan, Puerto Rico.

Jules Craynock, OAR's line office Diving Officer, will attend the annual NOAA Diving Safety Board Meeting in Seattle, Washington on December 6-10, 1999.

Christopher Landsea will attend a NOAA Hurricane Conference at the National Hurricane Center in Miami on December 8-9, 1999.

David Enfield, Kelly Goodwin, Tsung-Hung Peng, Rik Wanninkhof, Thomas Carsey, and Jia-Zhong Zhang will attend the American Geophysical Union's 1999 Fall Meeting in San Francisco, California on December 12-18, 1999.

Tsung-Hung Peng will make an invited presentation entitled "Ocean circulation during the little ice age: A model for exploration" at the National Taiwan University in Taipei, Taiwan on December 20-24, 1999.

HAPPY NEW YEAR 2000!

Annual AOML Holiday Party

December 10, 1999

Refreshments - 12 Noon

Pot-Luck Luncheon - 12:45 p.m.

Bring your favorite dish or dessert to share with others

Adults (and children over 11 years of age): $5.00

Contact Alejandra Lorenzo for more information (305-361-4404 or lorenzo@aoml.noaa.gov)

Sponsored by the Morale, Welfare, and Recreation Committee

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The deadline for submitting material for the January 2000 issue of *Keynotes* is Friday, December 17, 1999.

Keynotes can be viewed online in PDF format at the following World-Wide Web Internet address:
http://www.aoml.noaa.gov/keynotes